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3-19-03  
Ratka

PATENT  
SD-6261.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Fleming et al.

For: Method to Fabricate Layered Material Compositions  
the specification of which is attached hereto.

**PRELIMINARY AMENDMENT ACCOMPANYING DIVISIONAL APPLICATION  
FILED UNDER 37 C.F.R. 1.53(b)**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Applicants submit for entry the following amendments to the accompanying 37 C.F.R.  
1.53(b) divisional application.

In the Specification

On page <sup>2</sup>~~7~~, line 2, insert the following paragraph:

--This is a division of Application No. 09/ 296,702, filed October 14, 1999, now allowed.--

On page 10, please delete the last paragraph:

"Figure 10 shows a one-dimensional photonic lattice whose periodic symmetry axis is  
parallel to the surface of the substrate on which it is grown."

On page 19, please replace the paragraph beginning at page 19, line 12 with the following  
rewritten paragraph:

-- Finally, an emphasis has been made on the fabrication of fully three dimensional  
photonic lattices above. The present invention also lends itself to making one- and two-  
dimensional photonic lattices, both of conventional design and of a new bulk form. The  
conventional one-dimensional photonic lattice is simply a stack of layers, each layer having a  
uniform composition. The axis of the lattice is then normal to the surface of the substrate on  
which the layers are grown. An interesting type of one-dimensional photonic lattice for which  
there is no other practical fabrication method is one where the axis of the photonic lattice is  
parallel to the surface of the substrate. This can be accomplished by growing many copies of the

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